CLAIMS

- 1. A micromirror array device comprising at least two of a plurality of zones of separately controllable tiltable reflecting elements, each of the tiltable reflecting elements of a zone being capable of tilting about an axis of predetermined tilt orientation associated with the zone between a first reflecting position reflecting an incident beam to a predetermined first direction (on direction), and a second reflecting position reflecting the incident beam to a predetermined second direction (off direction), each of said at least two of a plurality of zones having a predetermined off direction for all the reflecting elements in that zone, that is different from the off direction of at least one other zone of said at least two of a plurality of zones.
- 2. The device as claimed in claim 1, wherein said at least two of a plurality of zones comprise two zones.
- 3. The device of claim 1, wherein said at least two of a plurality of zones comprise four zones.
- 4. The device of claim 1, wherein the predetermined tilt orientation for all the reflecting elements in a zone is orthogonal to the tilt orientation of the one other zone of said at least two of a plurality of zones.
- 5 The device of claim 1, wherein said at least two of a plurality of zones are adjacent each other.
- 6. The device of claim 1, wherein each reflecting element is electrically actuated, being separately controlled by a control unit.
- 7. The device of claim 1, wherein a lens is further provided in front of the array in a predetermined distance from the array, placed in the on direction of all the reflecting elements, of the plurality of zones.
- 8. The device of claim 1, wherein a normal of a given reflecting element in a zone of said at least two of a plurality of zones, when the reflecting element is positioned in the off direction coincides at a point on a plane adjacent the lens with a normal of a corresponding reflecting element in one other zone of said at least two of a plurality of zones, when the corresponding reflecting element is positioned in the off direction.

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- 9. The device of claim 1, wherein each of said at least two of a plurality of zones having a predetermined tilt orientation for all the reflecting elements in that zone, that is different from the tilt orientation of at least one other zone of said at least two of a plurality of zones.
- 10. The device of claim 9, wherein said at least two of a plurality of zones comprise two zones.
- 11. The device of claim 9, wherein said at least two of a plurality of zones comprise four zones.
- 12. The device of claim 9, wherein the predetermined tilt orientation for all the reflecting elements in a zone is orthogonal to the tilt orientation of the one other zone of said at least two of a plurality of zones.
- 13 The device of claim 9, wherein said at least two of a plurality of zones are adjacent each other.
- 14. The device of claim 9, wherein each reflecting element is electrically actuated, being separately controlled by a control unit.
- 15. The device of claim 9, wherein a lens is further provided in front of the array in a predetermined distance from the array, placed in the on direction of all the reflecting elements, of the plurality of zones.
- 16. The device of claim 15, wherein a normal of a given reflecting element in a zone of said at least two of a plurality of zones, when the reflecting element is positioned in the off direction coincides at a point on a plane adjacent the lens with a normal of a corresponding reflecting element in one other zone of said at least two of a plurality of zones, when the corresponding reflecting element is positioned in the off direction.
- 17. A method for steering light comprising

providing at least two of a plurality of zones of separately controllable tiltable reflecting elements, each of the tiltable reflecting elements of a zone being capable of tilting about an axis of predetermined tilt orientation associated with the zone between a first reflecting position reflecting an incident beam to a predetermined first direction (on direction), and a second reflecting position reflecting the incident beam to a predetermined second direction (off direction), each of said at least two of a plurality of

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zones having a predetermined off direction for all the reflecting elements in that zone, that is different from the off direction of at least one other zone of said at least two of a plurality of zones;

providing an illuminating beam source for separately illuminating each of said at least two of a plurality of zones of separately controllable tiltable reflecting elements

illuminating said at least two of a plurality of zones of separately controllable tiltable reflecting elements

separately manipulating each of the separately controllable tiltable reflecting elements between the on direction and off direction.

- 18. The method of claim 17, wherein each of said at least two of a plurality of zones having a predetermined tilt orientation for all the reflecting elements in that zone, that is different from the tilt orientation of at least one other zone of said at least two of a plurality of zones.
- 19. The method of claim 18, wherein said at least two of a plurality of zones comprise two zones.
- 20. The method of claim 18, wherein said at least two of a plurality of zones comprise four zones.